

## Addendum #2

Directorate of Facilities Engineering

30 April 2021

This Addendum modifies, amends, and supplements designated parts of the Contract Documents, Specifications and Drawings for:

**Westbrook Armory Renovation, 120 Stroudwater Avenue, Westbrook, Maine, 04092, Project Number 23SR19-427-D, BGS Project Number 3034, Bid Number 21-022.**

It shall be the responsibility of the Contractor to notify all Subcontractors and Suppliers for various portions of the work of any changes or modifications contained in this Addendum.

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### **Clarification Items:**

- Question:** Specification 114000 – Item 62 is a Custom Fabricated Worktable and is classified as Classification C, should this be Classification A since it is custom fabricated?

**Answer:** No, this is a mobile work table, Classification C is correct. Classification A is for permanent equipment.
- Question:** Specification 114000 – Item 8; Atlas no longer offers the specified AT4-DS-SKV-4 food guard. Please advise on an alternate option?

**Answer:** The Contractor must provide the closest possible substitution to meet the specification and we will review the product when submitted.
- Question:** Is there a specific Federal Specification number for the Vault Door as well as the associated hardware?

**Answer:** Federal Specification (Fed Spec.) AA-D-600D.
- Question:** Drawing S-001, Concrete Notes #14 calls for the contractor to retain the testing and inspection for concrete and reinforcing, Specification 033053 3.8A states that the Owner will engage the testing agency. Please clarify?

**Answer:** The Contractor to hire the testing and inspection agents for concrete and reinforcing.
- Question:** Drawing S-002 & S-003, Schedule of Structural Testing and Inspection states that the AHJ will engage a testing agency to completes several listed tests. The specification in several division contradict this, stating that the contractor is to engage the testing agency. Please clarify?

**Answer:** The Contractor to hire the testing and inspection agents for concrete and reinforcing.
- Question:** The roof parapet wall details on A-506 detail 1 does not show any plywood sheathing on either side, inside or outside. Please clarify if this is required and if it should be PT or CDX as well?

**Answer:** Parapets must be constructed as detailed within Drawing Set.

7. **Question:** Please provide structural details for the blast rated transom assembly located above the blast rated doors 100A and 100B?  
**Answer:** Transom is mulled with door, see details on A-603 corresponding to window type H.
8. **Question:** Drawing A-604 “General Reference: ATRP Door Elevation Detail” shows mounting locations of all associated access controls required at the ATRP doors, due to these doors/frames/transoms being blast rated is it acceptable for all items shown on the elevation to be surface mounted? Please advise?  
**Answer:** General Reference Drawing on A-604 states to surface mount items. These items are not mounted to door frame, they are mounted to wall next to door.
9. **Question:** Drawing A-202 Detail 2 shows the second window from the left as a Type H however Drawing A-204 Detail 2 shows the second window from the left as a Type E window. Please advise which window type this opening is?  
**Answer:** Window Type E.
10. **Question:** Doors 101A and 101B are called out to have frame type 4 which is a 6’ wide frame, however, under door size there is only one 3’ wide leaf listed per door. Please advise if these openings are supposed to have (2) 3’ leaves and if not please advise what is to fill the other 3’ of the door frame?  
**Answer:** Doors 101A and 101B are to have (2) 3’-0” x 6’-8” door leaves.
11. **Question:** Door Frame Type 4 shows a 6’ wide frame with a removable mullion placed 1’ off center, however most of the doors utilizing frame type 4 have (2) 3’ leaves. Please advise if the mullion can be placed in the center of the opening as needed?  
**Answer:** Yes, the mullion can be place at center of opening as needed.
12. **Question:** An Air Moisture Barrier is noted on most of the A-500 drawings, but no specification exists. Please clarify what type of Air Moisture Barrier you are requiring?  
**Answer:** Product to be part of EIFS system as recommended by EIFS manufacturer.
13. **Question:** trouble with the metering specified located in the panel MDP, PP1, PP3, PP4 and PP1A. The spec says these should be integral to the panels and monitor individual circuits within. SQD build the panels with integral meters to monitor the whole panel, as the CTs are sized for the bussing. this will mean a CT much larger than is required, and may lead to some data loss. we could buy smaller CT's and change in the field, but this would be an additional expense. also, in panel PP3, the meter needs to monitor 6 separate circuits. this cannot be done with just 1 meter, it will require 6 separate meters, further driving up the cost. Panels PP1 & PP4 are flush mount, and integral meters are not an option on these panels. can we use the meters to monitor the entire panels?  
**Answer:** The equipment monitoring was requested to track specific equipment usage, not of the entire panel (outside of Panel PP1). The building can be rented for events and the Guard wants to be able to bill the renter after the fact for equipment usage during the event.
- Question:** Can they be externally mounted?  
**Answer:** See specifications and drawings. The MEARNG requires individual circuits to be monitored.

**Question:** What communication protocol are they using?

**Answer:** BACnet.

**Question:** Can we substitute the PM5563, if we can find a less expensive option that would provide all the data you wish to collect?

**Answer:** No. The use of this device was specifically requested by the client to establish a standard across buildings.

**Question:** what data are you looking to collect, power consumption, voltage, power quality?

**Answer:** The extents of data collection and additional data points can be verified by the Guard. The following was given as standard:

Energy delivered.

Power demand (real, reactive, apparent).

Power factor.

Power quality.

Current (per phase & average).

Voltage (between phase/neutral & average).

Frequency.

Current readings presented as well as daily, weekly, monthly, quarterly, and yearly readings.

14. **Question:** In reviewing the window specifications, there are 2 spec sections issued for the same thing. Which is correct? Also note they are calling for an aluminum window to be mulled to a steel/hollow metal door. That can't happen. These are all blast rated materials and as such are tested only as complete units, you can't simply take a blast aluminum window and fasten it to another product/manufacturer. Any type of transom will need to be part of the door/frame suppliers scope?

**Answer:** The transom window above the entrance doors are to mulled as part of the door assembly from the same door manufacturer. The material callout in the schedule is an error. Material must be the same as door and part of door assembly.

15. **Question:** Please clarify who is to pay for testing. Plan S-001 – Concrete Notes #14 states the Contractor shall retain testing agency. Specifications section 030053 – 3.8 Field Quality Control states the Owner will engage testing agency?

**Answer:** See question #4.

16. **Question:** Please identify where Fiber Reinforcement is to be included in the concrete?

**Answer:** Fiber reinforcing is not required for concrete on this project.

17. **Question:** Several ATRP doors call for keyed removable mullions. In order to meet blast requirements they must have a specialty mullion that cannot be keyed. Is this acceptable?

**Answer:** Doors that require ATRP rating must meet requirements regardless of mullion type.

### **Roofing Questions:**

18. **Question:** Is there a preliminary phasing schedule for roof demo, steel decking, temporary/weather-tight protection, and membrane roofing installation?

**Answer:** Contractor shall submit their schedule for phasing.

19. **Question:** FM Global Insurance requirements are listed in this specification. Is this project FM Insured?  
**Answer:** No, it is not FM insured, but stated FM requirements in specification are required on the project.
20. **Question:** There are three different wind rating requirements listed in the specification. Please verify what we need to meet and what wind-rider the manufacturer's warranty should include?  
**Answer:** All requirements in specification must be followed.
21. **Question:** The specification calls for a .090 mil nonreinforced, black EPDM membrane? There is no non-reinforced .090 mil EPDM membrane, only reinforced. Please verify?  
**Answer:** Non-reinforced required per specification.
22. **Question:** The specified Black EPDM does not meet the specified Solar Reflectance Index, Energy Star Listing, or Energy Performance requirements listed in the specification. Please verify if these are actual requirements and if so please provide more direction on requested products?  
**Answer:** Owner – Use Black .090 mil EPDM membrane.
23. **Question:** 090 Reinforced EPDM is a standard requirement for most 25-30 year warranted roofs. This is calling for a 15-year. Is a .060 non-reinforced EPDM acceptable?  
**Answer:** No, provide .090 non-reinforced EPDM membrane per specification.
24. **Question:** A reinforced 6mil poly air/vapor retarder sheet is listed. For temporary weather-tight protection during demo and phases of construction, is a self-adhered bituminous vapor barrier direct to the steel deck acceptable?  
**Answer:** Temporary protection is contractor option.
25. **Question:** The specification is calling for a 5/8” silicone modified (primed) gypsum cover-board. This is not required by FM or membrane roofing manufacturers for warranty or to meet performance requirements. Is a high-density, high-performance polyisocyanurate cover-board that meets the specified hail requirements acceptable? This will significantly reduce the dead load on the structure, reduce costs, increase production, and is overall a better product for the roof assembly?  
**Answer:** Provide cover board per specification.
26. **Question:** The specification is calling for the first layer of insulation to be mechanically fastened and each subsequent layer of insulation to adhere. The spec then asks for the cover-board to be mechanically fastened, contradicting the previous section. Is a common fastener acceptable for all roofing components beneath the membrane?  
**Answer:** Install per specification.
27. **Question:** Roof slope looks to be achieved by installing a tapered polyisocyanurate insulation system. Please indicate the requested minimum or average R-value required for this project above the roof deck. Please note, for full tapered assemblies an average r-value approach should be considered due to maximum insulation thicknesses at perimeters, sills, and thresholds?  
**Answer:** Per detail 2/A-506, 6” min. insulation (R-30) at the roof drains must be provided.

28. **Question:** The sheet metal is specified to have an Alclad finish. This is rare. Is an industry-standard two-coat prefinished Kynar with a 25-30 year finish warranty acceptable?

**Answer:** Kynar 500 finish with a 25-30 year finish warranty is acceptable.

### **End Of Roof Questions**

29. **Question:** Security - The spec refers to a security consultant. Could you pass along that contact information regarding access control?

**Answer:** Building Automation Control (BAC). Your controls contractor must be able to pass the security clearance requirements required by National Guard Bureau. Detailed information are in the specification. See Specification 23 09 00 para.1.12.C.

30. **Question:** Roof Plan A-103 at the low roof shows cuts that refer to overhang framing on the north and west and partial east and south sides however there are no cuts for most of the east and south sides. Is the overhang to be framed around the building similar to what the exterior elevations show?

**Answer:** Yes, the overhang is the typical detail for the low roof edge perimeter.

31. **Question:** Roof Plan A-103 at the high roof there is a cut that shows overhang framing on the north side only. Is this framing to be on east, west and south also?

**Answer:** Yes, the overhang is the typical detail for the high roof edge perimeter.

32. **Question:** Details 3, 4 and 5 on A-503 show 4" R-21 in metal stud framing. R-21 is a 6" insulation? Please advise what the correct product is?

**Answer:** Total insulation value of wall assembly to be R-21 min.

33. **Question:** 4. Detail 3 on A-505 shows a shaft wall at the vault however demo plan AD-102 does not show any walls being removed? What is the extent of this work?

**Answer:** This work happens on top of the existing vault wall assembly and extends to the underside of the roof deck. No walls are to be removed in this area as part of demo scope.

34. **Question:** 6. There are various window infills on the project, for example at the Assembly Hall 101 North and South. There are no cuts showing what is to be done for infills. Are these to be done similar to Detail 3 on A-503?

**Answer:** Yes, they are to be similar to 3/A-503.

35. **Question:** What is the specific EIFS system? There are 9 commonly used ones?

**Answer:** This is listed in the spec under 2.1. StoTherm Ci; Classic or comparable product. Typo in the spec incorrectly refers to it as StoTherm C; Classic.

36. **Question:** Is the intent to use the 071113 Bituminous Damp proofing as the Air & Water Barrier on the exterior masonry walls under the EIFS, if not please supply an Air Barrier Specification?

**Answer:** Same question as #12.

37. **Question:** #1 Drawing M-103 note #6 says Contractor shall hire and pay all costs for the Gas Utility to furnish and install all gas components. I assume they are talking about the gas service. Are we as a GC carrying those costs or is it the Gas Company?

**Answer:** GC shall carry the cost to furnish and install all gas components.

### **Specification Items:**

1. Replace Section 00 41 13 Contractor Bid Form, pages 2 of 4 and 3 of 4 with enclosed revised Section 00 41 13 Contractor Bid Form, pages 2 of 4 and 3 of 4. Allowance #4: The Contractor shall hire Central Maine Power to replace the power poles, transformers, conduits, conductors, meters, etc as required by the Plans and Specifications. The Contractor shall carry an allowance price of **\$20,000.00 dollars** has been added. Addendum #2 is noted on page 4 of 4.
2. Replace Section 00 52 13 Construction Contract, page 3 of 4 with enclosed revised Section 00 52 13 Construction Contract page 3 of 4. Addendum #2 is noted on page 3 of 4.
3. Replace Section 01 00 00 Administrative Provisions, page1 through 27 with enclosed revised Section 01 00 00 Administrative Provisions, page1 through 27. Allowance #4: The Contractor shall hire Central Maine Power to replace the power poles, transformers, conduits, conductors, meters, etc as required by the Plans and Specifications. The Contractor shall carry an allowance price of **\$20,000.00 dollars**.

### **Drawing Items:**

1. No Drawings Changes.

**00 41 13  
Contractor Bid Form**

1. The Bidder, having carefully examined the form of contract, general conditions, specifications and drawings dated 9 April 2021, prepared by Colby Co. LLC for Westbrook Armory Renovation, Westbrook, Maine, as well as the premises and conditions relating to the work, proposes to furnish all labor, equipment and materials necessary for and reasonably incidental to the construction and completion of this project for the **Base Bid** amount of:

\$ \_\_\_\_\_ .00

2. Allowances *are included* on this project.

*<Bid Administrator to select...>*

*1. Allowance #1 - Potential Contaminated Soil. See Administrative Provisions 01 00 00 Schedule of Allowances, Paragraph 1.01,G.1. - \$10,000.00*

*2. Allowance #2: Weatherproof Conex Storage Containers. See Administrative Provisions 01 00 00 Schedule of Allowances, Paragraph 1.01,G.2. - \$20,000.00*

*3. Allowance #3: Replacement of furniture. See Administrative Provisions 01 00 00 Schedule of Allowances, Paragraph 1.01,G.3. - \$15,000.00*

*4. Allowance #4: CMP - Hire CMP for the replacement of equipment, pole and transformers, etc. See Administrative Provisions 01 00 00 Schedule of Allowances, Paragraph 1.01,G.4. - \$20,000.00*

\$ 65,000.00

3. Alternate Bids *are included* on this project.

*Alternate Bids are as shown below*

Any dollar amount line below that is left blank by the Bidder shall be read as a bid of **\$0.00**.

*1 Alt.#1 Generator - See 01 00 00 Add. Paragraph 1.01,H.1* \$ \_\_\_\_\_ .00

*2 None* \$ \_\_\_\_\_ .00

*3 None* \$ \_\_\_\_\_ .00

*4 None* \$ \_\_\_\_\_ .00

**00 41 13  
Contractor Bid Form**

4. The Bidder acknowledges receipt of the following addenda to the specifications and drawings:

Addendum No. <u>  1  </u> Dated: <b><u>26 April 2021</u></b>	Addendum No. <u>      </u> Dated: <u>          </u>
Addendum No. <u>  2  </u> Dated: <b><u>30 April 2021</u></b>	Addendum No. <u>      </u> Dated: <u>          </u>
Addendum No. <u>      </u> Dated: <u>          </u>	Addendum No. <u>      </u> Dated: <u>          </u>
Addendum No. <u>      </u> Dated: <u>          </u>	Addendum No. <u>      </u> Dated: <u>          </u>

5. Bid security *is required* on this project.  
If noted above as required, the Bidder shall include with this bid form a satisfactory Bid Bond (section 00 43 13) or a certified or cashier's check for 5% of the bid amount with this completed bid form submitted to the Owner.

6. Filed Sub-bids *are not required* on this project.  
If noted above as required, the Bidder shall include with this bid form a list of each Filed Sub-bidder selected by the Bidder on the form provided (section 00 41 13F).

**4.6** The Contractor shall be responsible for any design cost, construction cost, or other cost incurred on the Project to the extent caused by the negligent acts, errors or omissions of the Contractor or their Subcontractors in the performance of Work under this Contract.

#### **ARTICLE 5 OWNER'S RESPONSIBILITIES**

**5.1** The Owner shall provide full information about the objectives, schedule, constraints and existing conditions of the project. The Owner has established a budget with reasonable contingencies that meets the project requirements.

**5.2** By signing this contract, the Owner attests that all State of Maine procurement requirements for this contract have been met, including the solicitation of competitive bids.

#### **ARTICLE 6 INSTRUMENTS OF SERVICE**

**6.1** The Contractor's use of the drawings, specifications and other documents known as the Consultant's Instruments of Service is limited to the execution of the Contractor's scope of work of this project unless the Contractor receives the written consent of the Owner and Consultant for use elsewhere.

#### **ARTICLE 7 MISCELLANEOUS PROVISIONS**

**7.1** This Contract shall be governed by the laws of the State of Maine.

**7.2** The Owner and Contractor, respectively, bind themselves, their partners, successors, assigns and legal representatives to this Contract. Neither party to this Contract shall assign the Contract as a whole without written consent of the other party, which consent the Owner may withhold without cause.

**7.3** Notwithstanding any other provision of this Agreement, if the Owner does not receive sufficient funds to fund this Agreement or funds are de-appropriated, or if the Owner does not receive legal authority from the Maine State Legislature or Maine Courts to expend funds intended for this Agreement, then the Owner is not obligated to make payment under this Agreement; provided, however, the Owner shall be obligated to pay for services satisfactorily performed prior to any such non-appropriation in accordance with the termination provisions of this agreement. The Owner shall timely notify the Consultant of any non-appropriation and the effective date of the non-appropriation.

#### **ARTICLE 8 CONTRACT DOCUMENTS**

**8.1** The General Conditions of the contract, instructions to bidders, bid form, Special Provisions, the written specifications and the drawings, and any Addenda, together with this agreement, form the contract. Each element is as fully a part of the Contract as if hereto attached or herein repeated.

**8.2** Specifications: *9 April 2021*

**8.3** Drawings: *9 April 2021*

**8.4** Addenda: *Addendum #1 - 26 April 2021*  
Addenda: *Addendum #2 - 30 April 2021*

## SECTION 01 00 00

### ADMINISTRATIVE PROVISIONS

#### PART 1 GENERAL

##### 1.01 CONTRACT REQUIREMENTS

###### A. Scope of Work:

1. The Work of the Contract includes the renovation of the entire Westbrook Armory and a small addition. The complete renovation shall consist of the building envelope, windows, doors, roof system, office areas, bathrooms, showers, kitchen and classrooms. The utility systems shall be upgraded to include HVAC mechanical systems, plumbing system and electrical system. The Contractor shall furnish and install all items in accordance with Plans and Specifications.
2. The work of this contract shall not start until 1 October 2021. See Work Sequence 1.01,C.2.
3. Allowance #2. Weatherproof Conex Storage Containers. See Administrative Provisions 01 00 00 Schedule of Allowances, Paragraph 1.01,G.2.
4. Allowance #3. Replacement of furniture. See Administrative Provisions 01 00 00 Schedule of Allowances, Paragraph 1.01,G.3.

###### B. Contract Method:

1. Basis of award of this Contract will be in accordance with Section 1 Instructions to Bidder, Paragraph 2.
2. Contract type: State of Maine – Bureau of General Services, Construction Contract, Section 00 52 13.
3. The project will be constructed under a single lump sum contract.

###### C. Work Sequence:

1. Work of the Contract and related provisions are as described in the Contract Documents.
2. The work of this contract shall not start until 1 October 2021. The Contractor may preorder all required equipment and items necessary to begin construction on 1 October 2021. The Contractor shall be responsible for all costs to store all equipment and items in an environment that shall not harm or damage any of the stored equipment and items. Before the Contractor is authorized to invoice for any of the equipment and items. The Contractor must provide itemized invoices and insurance certificates for stored equipment and items. The

Contractor must also provide a Right of Entry Letter authorizing the MEARNG personnel right of entry into the facility to verify invoicing of the stored equipment and items. The Contractor shall provide biweekly inspection of the stored equipment and items and provide a signed check list for record of the inspection. The inspection shall state that all equipment and items are still stored in the original location and are free from damage and or defects.

D. Contractor Use of Premises:

1. Work of this Contract includes coordinating the work with the daily operations of the Owner.
2. Limit use of premises for Work and construction operations only, allow for Owner occupancy, work by other Contractors, and public access.
3. Federal and State Holiday Schedule. The Contractor may not work on Federal or State Holidays; non-working days of this Contract for FY 2021 are 11 October, 11, 25, 26 November, 24, 25 December, for FY 2022 are 1, 17 January, 21 February, 18 April, 30 May, 4 July, 5 September, 10 October, 11, 24, 25 November, 24, 25 December, for FY 2023 are 1, 2, 16 January, 20 February, 17 April.
4. Limit access to Owner's site, hours of operations are 7:00 A.M. - 4:00 P.M. If Contractor would like to work on a federal or state holiday he/she must request permission from Owner three working days in advance. The Owner reserves the right to accept or reject Contractor's request.
5. The Contractor must work with each organization to gain access to certain area through-out the building.
6. Coordinate use of premises under direction of Owner.
7. The Contractor shall be responsible for his/her security in Construction Area until substantial completion. The contractor shall coordinate security of Building with Owner.

E. Owner Occupancy:

1. Owner will occupy the existing outbuildings during the entire period of construction, to conduct the Owner's normal operations. The Contractor shall cooperate with Owner to minimize conflict to the Owner's operations.
2. Owner will occupy surrounding areas during entire period of construction, to conduct Owner's normal operations. The Contractor shall cooperate with Owner to minimize conflict to the Owner's operations.

F. Owner-furnished Products:                      Not Used

G. Schedule of Allowances:

1. Allowance #1: Potential Contaminated Soil. The Contractor shall carry an allowance price of **\$10,000.00 dollars**. The Contractor shall remove 100 cubic yards of #2 fuel contaminated soil. The Contractor shall dispose of the #2 fuel contaminated soil offsite. The Contractor shall dispose of the #2 fuel contaminated soil at an M.D.E.P. authorized facility. The Contractor shall also replace the removed contaminated soil with M.D.O.T 1" minus Type B aggregate. If the allowance is not used the Owner will deduct Allowance #1 from the contract amount with a Change Order Deduct. The Owner shall also reclaim any portion of the allowance that may not be used from Allowance #1 from the contract amount with a Change Order Deduct.
  
2. Allowance #2: Weatherproof Conex Storage Containers. The Contractor shall carry an allowance price of **\$20,000.00 dollars**. As part of this contract, the Contractor shall provide five (5) 8'-0" width x 8'-6" height x 40'-0" length Weatherproof Conex Storage Containers and a Moving Company. The Contractor shall hire an Owner approved moving company to remove all the remaining furniture, kitchen equipment, gym equipment, wall mounted white boards, shelving and contents left in the armory to the Weatherproof Conex Storage Containers. The Contractor shall provide standard moving protection items and equipment to ensure that the items are not damaged when moved from the Armory to the Weatherproof Conex Storage Containers. The five Weatherproof Conex Storage Containers shall remain in the Armory's back fenced compound during the construction period. The Contractor shall provide biweekly inspection of the Weatherproof Conex Storage Containers and keep a dated check list record of the inspection. After each inspection the Contractor shall send written notification to the Owner of any issues with the Weatherproof Conex Storage Containers and or the contents. The Contractor shall be responsible for any damage to any of the contents in the Weatherproof Conex Storage Containers. The Contractor at their expense shall replace any damage items and or equipment. If the allowance is not used the Owner will deduct Allowance #2 from the contract amount with a Change Order Deduct. The Owner shall also reclaim any portion of the allowance that may not be used from Allowance #2 from the contract amount with a Change Order Deduct.
  
3. Allowance #3: Replacement of furniture. The Contractor shall carry an allowance price of **\$15,000.00 dollars**. After substantial completion. As part of this contract, the Contractor shall hire an Owner approved moving company to remove all the contents from the Weatherproof Conex Storage Containers. The moving company shall move all items back into the Armory. MEARNG personnel shall show the Contractor where the designate locations of the items will be placed. The Contractor shall direct the moving company where to place the items. The Contractor at their expense shall replace any damage items and or equipment damaged by the moving company. The Contractor shall be responsible for any damages to the Armory caused by the moving company such as walls, floors, doors, ceiling, etc. and fix and or replace any damaged items at no costs to the Owner. If the allowance is not used the Owner will deduct Allowance #3 from the contract amount with a Change Order Deduct. The Owner shall also reclaim any portion of the allowance that may not be used from Allowance #3 from the contract amount with a Change Order Deduct.

4. Allowance #4: The Contractor shall hire Central Maine Power to replace the power poles, transformers, conduits, conductors, meters, etc as required by the Plans and Specifications. The Contractor shall carry an allowance price of **\$20,000.00 dollars**. If the allowance is not used the Owner will deduct Allowance #4 from the contract amount with a Change Order Deduct. The Owner shall also reclaim any portion of the allowance that may not be used from Allowance #4 from the contract amount with a Change Order Deduct.

5. Authorized use of the allowance funding. The Contractor must provide price proposals for each allowance to the Owner and the Consultant. The Owner and the Consultant shall agree to the amount of all allowance expenditures. The Contractor shall not expend any allowance funding without written permission of the Owner. If any of the allowances #1, #2, #3 and #4 are not used. The Owner shall deduct the entire amount of the allowance from the contract amount with a Change Order Deduct. The Owner shall also reclaim any portions of the allowances #1, #2, #3 and #4 that may not have been used from the contract amount with a Change Order Deduct.

H. Alternate Bids:

1. Alternate Bid #1, Install a generator and conductors to the new building's generator switchgear.

2. See specification 26 32 13.13 paragraph 1.2 A and 1.2 B. Under the Base Bid the Contractor shall carry all costs to install all the infrastructure required to have the building ready to accept the connection of a new generator. The Base Bid shall consist of installation of concrete generator pad, switchgear, underground conduits from switch gear to concrete generator pad, installation of conduits from concrete generator pad to lobby for future generator control panel. All items shall be carried in the Base Bid except the generator, generator control panel and conductors to connect the generator to the generator switchgear.

I. Unit Prices: Not Used

J. Applications for Payment:

1. Submit Six (6) copies of each application under procedures of 00 72 13 Section 31, on "Requisition for Payment", Form B.G.S. 17-A-61, revised 29 Feb. 08.

K. Coordination:

1. Work of this Contract includes coordination of the entire Work of the Project.
2. The Contractor shall obtain and pay for all necessary construction/building permits. The Contractor shall send (two) copies of all permits to the Owner.
3. Coordinate work with all utilities. Interruption of services shall be coordinated with an appropriate official at the facility to minimize the disruption of operations within the facility.

4. Notify an appropriate official at the facility at least three days in advance of the need to move furnishings, equipment, materials, etc. from areas to be affected by the construction.
5. Control on-site activities to minimize the disruption of the occupants.
6. Coordinate the work of equipment and material suppliers and subcontractors.
7. Make arrangements for the timely delivery of materials and supplies to the job site and for their temporary storage on site.
8. Maintain the project site in a neat condition.
9. Assist the Owner during periodic site visits and in the review of construction.
10. Maintain up to date progress records and as-built drawings.

L. Conflicts:

1. Contractor shall notify Owner in writing of any real or apparent conflicts in the Contract Documents and, except in cases of emergency, await Owner's determination before proceeding.
2. The **Owner's Project Manager - Robert W. Palmer III** shall resolve conflicts that arise during construction.
3. If two or more solutions are indicated in the Contract Documents, the Contractor shall assume the cost of the more expensive solution unless otherwise directed by the Owner.

M. Field Engineering:

1. The Contractor shall be responsible for all field engineering as required.
2. The Contractor shall be responsible for all special inspections required to obtain any Building Permits from the **City of Westbrook**.

N. Field Testing and Inspections:

1. The Contractor shall carry all costs for testing and inspections required by the Contract Documents and the City of Westbrook. The Contractor shall hire only Consultant approved and Owner approved independent testing agencies to perform all testing and inspections.

O. Reference Standards:

1. For products specified by association or trade standards, comply with requirements of the standard, except when more rigid requirements are specified or are required by

applicable codes.

2. The date of the standard is that in effect as of the Bid date, or date of Owner-Contractor Agreement when there are no bids, except when a specific date is given.
3. Obtain copies of standards when required by Contract Documents. Maintain copy at job site during progress of the specific work.

## 1.02 SCHEDULING AND PHASING OF WORK

- A. Construction Start Date: The construction start date for this project **shall not** commence until after **1 October 2021**. The Contractor shall not start any site work or any building work until after **1 October 2021**. See Administrative Provisions 01 00 00 paragraph 1.04, B.2a. and 1.04, B.2b.
- B. Substantial Completion: Work of the Contract must be Substantially Completed by **1 April 2023** so that the Owner can have full use of interior space.
  1. Except as otherwise specified, Substantial Completion is hereby defined to mean a stage of completion sufficient for the Owner to have full beneficial use and occupancy of the structure involved, less only minor corrections and repairs that can be performed without undue annoyance to building occupants which shall be documented on the "punch list" as specified hereinafter. Beneficial use and occupancy means removal of all debris, interior and exterior scaffolding, surplus equipment and material and cleaning as required under the Contract completed.
- B. Final Completion of all Work of this Contract shall be by **30 April 2023**.
  1. Except as otherwise specified, Final Completion is when the Work of the Contract has been completed in accordance with the terms and conditions of the contract documents with no "punch list" items open, and is ready for final payment.
- C. The expiration date of this Contract is **30 June 2023**.
  1. Except as otherwise specified, Expiration Date is hereby defined to mean the date when all engagements of the parties has ended, except to those which arise from the non-fulfillment of obligations created during its existence, such as warranties.
- D. Fenced Compound and Outbuildings. Normal building operations will continue throughout the length of the Project. The successful Contractor shall develop a schedule of work that is respectful of the Owner's needs.
  1. Applicable egress codes must be complied with during the construction period.

## 1.03 REGULATORY REQUIREMENTS

- A. Conform to Local, State and Federal codes.

## 1.04 PROJECT MEETINGS

### A. Requirements:

1. The Contractor shall, upon acceptance of a Contract and before commencing Work, contact the Owner and request a pre-construction conference as required in 00 72 13 Section 1.

### B. Pre-construction Conference

1. The OWNER will administer pre-construction conference for execution of Owner-Contractor Agreement and exchange of preliminary submittals.
2. There shall be two (2) pre-construction conferences:
  - a. The first pre-construction conference shall be when the Contractor requires permission from the Owner to begin ordering equipment and items. The pre-construction conference shall setup a method for reviewing submittal and other contract documents.
  - b. The second pre-construction conference shall be on 1 October 2021 when the Contractor shall receive construction ownership of the building. The Contractor with the help of the Owner shall remove all existing locking cores and shall replace with the Owner provided construction cores. The Owner, Contractor and the Owner's Consultant shall meet to discuss the Bid Documents and the Contractor Project Schedule.

### C. Progress Meetings

1. The Contractor shall schedule and administer Bi-weekly Project Meetings throughout progress of the Work, called meetings, and pre-installation conferences.
2. The Contractor shall make physical arrangements for meetings, prepare agenda with copies for participants, preside at meetings, record minutes, and distribute copies within two days to Owner, participants, and those affected by decisions made at meetings.
3. Attendance: Job superintendent, major Subcontractors and suppliers, Owner and those appropriate to agenda topics for each meeting.
4. Suggested Agenda: Review of Work progress, status of progress schedule and adjustments thereto, delivery schedules, submittals, maintenance of quality standards, pending changes and substitutions, and other items affecting progress of Work.

## 1.05 SUBMITTALS

### A. Procedures

1. In all submittals always refer to project number 23SR19-427-D.
2. Refer to schedule of Contractor Deliverables provided by Owner/Consultant.
3. Submit the number of copies which Contractor requires, plus two copies, which will be retained by OWNER.
4. Submittals can be delivered electronically to both the Designer and Owner. If submitting by e-mail, submit to the Designer for approval, and the Owner for review, at the e-mail address below:

Designer: Winfield Stratton - [winfields@colbycoengineering.com](mailto:winfields@colbycoengineering.com)

Owner: Robert W. Palmer III - [robert.w.palmer.nfg@mail.mil](mailto:robert.w.palmer.nfg@mail.mil)

5. Submittals can be delivered in paper form. Deliver copies of submittals to Designer for approval at the address below:

**Colby Company, 47A York Street, Portland, Maine 04101.**

And one (1) copy to the Owner for review:

Directorate of Facilities Engineering  
194 Winthrop Street  
BLDG 7, Camp Keyes – ATTN: **Robert W. Palmer III**  
Augusta, ME 04330

6. Submittal Sheets:
  - a. Transmit each item under “Transmittal of Shop Drawings, Equipment Data, Material Samples, or Manufacturer’s Certificates of Compliance” located at the end of this Section;
  - b. Identify Project, Contractor, Subcontractor, major supplier;
  - c. Identify drawing sheet and detail number, and Specification Section number, as appropriate;
  - d. Identify deviations from Contract Documents.
7. Comply with progress schedule for submittals related to Work progress. Coordinate submittal of related items.
8. DESIGNER shall have 14 calendar days for review of submittals.
9. DESIGNER shall have 7 calendar days for review of (RFI) request for information.
10. After **DESIGNER** review of submittal, revise and resubmit as required identifying changes made since previous submittal.

11. Distribute copies of reviewed submittals to concerned persons. Instruct recipients to promptly report any inability to comply with provisions.

B. Quality Assurance; Substitutions, in accordance with Section 01 00 00, para. 1.08 (E).

C. Construction Progress Schedule

1. Submit an Initial Progress Schedule in duplicate. See 1.05.A.3 this section for submission information. After review by OWNER revise and resubmit as required.
2. The Contractor shall submit **Two (2)** copies of the Final Construction Progress Schedule within 4 calendar days of OWNER review.
3. Submit revised Progress Schedules with each Application for Payment, reflecting changes since previous submittal.

D. Submittal Schedule

1. Submit a Submittal Schedule in duplicate within **twenty (20)** working days following receipt of the fully executed formal Contract Agreement by the Contractor. After review by **OWNER** and the **DESIGNER** revise and resubmit as required.
2. Prepare the schedule in chronological order. Provide the following information:
  - a. Schedule date for the initial submittal.
  - b. Related section number.
  - c. Submittal category (Shop Drawings, Product Data, or Samples).
  - d. Name of Subcontractor.
  - e. Description of the part of Work covered.
  - f. Scheduled date for resubmittal.
  - g. Scheduled date for the Architect's final release of approval.
3. Show submittal dates required for Shop Drawings, Product Data, and Samples, and product delivery dates, including those furnished by Owner and those under Allowances as applicable.

E. Schedule Of Values

1. Submit Contract Schedule Of Values in duplicate within 10 days after date of Owner - Contractor Agreement. The Contractor shall include in their Contract Schedule of Values a Closeout Documentation Line Item. The Closeout Documentation Line Item shall consist of 5% of the total contract amount. This Closeout Documentation Line Item is to ensure that all Closeout Documentation are provided to the Owner and Consultant in a timely manner as stated in these Contract Documents.
2. Submit typed schedule on "Requisition for Payment", Form Section 00 62 76, BGS revised 5 May 2020.
3. Format: Table of Contents of this Project Manual.
4. Include in each line item a directly proportional amount of Contractor's overhead and profit.



5. Results from the NCIC background check are controlled under the Privacy Act of 1974 and not permitted to be given to anyone not acting in a Security Force capacity. No details of the background check will be revealed other than a pass/fail or suspended/revoked.
6. The Department retains the right to screen and restrict from the facility, personnel employed by or who represent the contractor, who do not receive a satisfactory/passing background check.
7. The Department will provide to the Contractor the names of those personnel that are acceptable for access to facilities and those who are not acceptable for unescorted access.
8. Contractors/vendors with acceptable background checks will be issued Contractor Badges for that individual's unescorted entry. The badges will be issued for the duration of the contract, or service agreement, not to exceed two years.

## 1.06 QUALITY CONTROL

### A. Quality Control, General

1. Maintain quality control over suppliers, manufacturers, products, services, site conditions, and workmanship, to produce work of specified quality.

### B. Workmanship

1. Comply with industry standards except when more restrictive tolerances or specified requirements indicate more rigid standards or more precise workmanship.
2. Perform work by persons qualified to produce workmanship of specified quality.
3. Secure products in place with positive anchorage devices designed and sized to withstand stresses, vibration, and racking.

### C. Manufacturers' Instructions

1. Comply with instructions in full detail, including each step in sequence. Should instructions conflict with Contract Documents, request clarification from Owner before proceeding.

### D. Manufacturers' Certificates

1. When required by individual Specifications Section, submit manufacturer's certificate, in duplicate, those products that meet or exceed specified requirements.

## 1.07 CONSTRUCTION FACILITIES AND TEMPORARY CONTROLS

### A. Electricity

1. All temporary work shall be provided in conformity with the National Electric Code, State laws, and requirements of the power company
2. The Contractor shall be allowed to hook to existing electrical panel in building, for temporary power. The Contractor will not disrupt power at building. The Owner will only pay for cost of electricity.
3. The Contractor shall provide all temporary electrical panels.
4. The Contractor shall be responsible to fix any damages, caused by modifications for temporary services.

#### B. Lighting

1. The Contractor shall provide source of lighting.

#### C. Temporary Heat

1. The Contractor shall provide temporary heat and equipment in interior spaces:
  - a. The Contractor shall not use electrical heating units if the Owner is supplying electrical power to the Contractor.
  - b. The Contractor shall be completely responsible for providing all equipment and labor required to comply with this section.
  - c. The Contractor shall utilize the services of a qualified Heating subcontractor for providing Temporary Heat. These services shall be paid for by the Contractor.
  - d. At no time shall any part of the building served by the boiler be allowed to be without heat if called upon by the building control system.
3. Temporary heating system work shall be performed under the direct supervision of individuals properly licensed to perform the necessary work.
4. All temporary work shall be provided in conformity with all applicable codes, State laws, and requirements of the utility company.
5. The Contractor shall pay the costs of all fuel required for temporary heating until Substantial Completion, unless specified otherwise.
6. Utilizing the Permanent Heat Distribution System for Temporary Heat:
  - a. The Contractor may, with the approval of the Owner, elect to utilize the permanent heat distribution system for temporary heat.
  - b. If the permanent heat distribution system cannot be utilized or if work requires a shutdown of the existing system the Contractor shall make arrangements, acceptable to the Owner, to comply with this requirement at no additional cost to the Owner.
  - c. The Contractor shall furnish and pay the costs of any materials and equipment which are not part of the permanent heating system and which may be required to

operate the permanent heat distribution system on a temporary basis.

7. Unit heaters, if used, shall be of the smokeless type and be installed and operated in such a way that finished work will not be damaged. "Salamanders" shall not be used.
8. Providing temporary heating service and equipment for exterior work:
  - a. Installation of weather protection and heating devices shall comply with all safety regulations including provisions for adequate ventilation and fire protection devices.
  - b. Unit heaters, if used, shall be of the smokeless type and be installed and operated in such a way that finished work will not be damaged. "Salamanders" shall not be used.

#### D. Water

1. The Contractor shall be allowed to hook to existing water in building, for temporary water supply. The Contractor will pay for cost of water usage for dust control and compaction for large amounts of water.

#### E. Sanitary Facilities

1. The Contractor shall provide their Sanitary Facilities.
2. The Contractor shall maintain one interior working Sanitary Facility for use by the visiting MEARNG personnel and the MEARNG Project Manager. The Owner may also authorize some of the Contractor's authorized personnel to use interior Sanitary Facility. When the facility is unclean, the Contractor shall be responsible to provide a daily cleaning of the Sanitary Facility.

#### F. Barriers

1. Provide as required to prevent public entry to construction areas, to provide for Owner's use of site, and to protect existing facilities and adjacent properties from damage from construction operations.

#### G. The Contractor will provide:

1. Office Trailer: Weather tight, with lighting, electrical receptacles, heating, cooling and drawing display table. The office trailer will have separate office space for the project manager to conduct his/her daily business.
2. Storage Sheds for Tools, Materials, and Equipment: Weather tight, with adequate space for organized storage and access, and lighting for inspection of stored materials.
3. His/her own on-site telephone, if so required for the conduct of his/her business.
4. Protected storage, if necessary.

5. Temporary barricades to separate the Contract Site areas from the Owner's area or public area.

#### H. Protection And Restoration

1. The Contractor shall be responsible for all damages to furnishings, equipment, supplies, existing construction, including finished surfaces, caused by Work of Contract.
2. The Contractor shall be fully responsible for maintaining weather-tight integrity of the roofing system and wall systems, including permanent and temporary flashings, during the entire construction period.
3. The Contractor's responsibilities shall include the cost to repair damage to the existing building's structure, finishes and contents associated with the Contractor's failure to maintain the watertight integrity of the roofing system and wall system, whether permanent or temporary, at no additional cost to the Owner.
4. The Contractor shall protect paved areas and lawns around the Building from damage associated with the construction. Costs to repair damage to paved areas and lawns will be deducted from Contractor's final payment to cover Owner's expenses to repair damage. The Owner will determine if damages to lawns are minor or major.

#### I. Security

1. Provide security program and facilities to protect Work, existing facilities, and Owner's operations from unauthorized entry, vandalism, and theft. Coordinate with Owner's security program.

#### J. Water Control

1. Water control is the responsibility of the Contractor.

#### K. Cleaning during Construction

1. Throughout the construction period the Contractor shall be responsible for maintaining building and site areas affected by the Work in a standard of cleanliness.
  - a. Retain stored items in an orderly arrangement allowing maximum access, not impeding traffic or drainage, and providing protection of materials.
  - b. Completely remove all scrap, debris, waste material and other items not required for construction from the site at least once a week.
  - c. Provide adequate storage for all items awaiting removal from the job site, observing requirements for fire protection and protection of the ecology.

2. Conduct daily inspection, more often if necessary, to verify that requirements for cleanliness are being satisfied.
3. Provide required personnel, equipment and materials needed to maintain the specified standard of cleanliness.
4. Use only those cleaning materials and equipment that are compatible with the surface being cleaned, as recommended by the manufacturer of the material.

#### L. Removal

1. Unless otherwise specified, materials to be removed, including all components and accessories, become property of the Contractor and shall be promptly removed from the Contract Site and legally disposed of at Contractor's expense.
  - a. The Contractor shall remove and save all white boards. Protect and store in Storage Containers.
  - b. The Contractor shall remove and save the kitchen stove and ice machine. Protect and store in Storage Containers.
  - c. The Contractor shall remove and save the lobby wooden cabinet. Protect and store in Storage Containers.
  - d. All other items lists under Allowance #2. Weatherproof Conex Storage Containers. See Administrative Provisions 01 00 00 Schedule of Allowances, Paragraph 1.01,G.2.
  - e. After all items are removed from the Armory, the Contractor and the Owner shall walk through the Armory. Anything not labeled by the Owner for removal to the storage containers shall be disposed offsite.
2. Remove temporary materials, equipment, services, and construction prior to Substantial Completion inspection.
3. Clean and repair damage caused by installation or use of temporary facilities. Restore existing facilities used during construction to specified, or to original, condition.
4. The Contractor shall be responsible for removing and disposing of solid wastes (including construction/demolition debris) per Section 01 35 43.

### 1.08 MATERIAL AND EQUIPMENT

#### A. Products

1. Products include material, equipment, and systems.
2. Comply with Specifications and referenced standards as minimum requirements.
3. Components required to be supplied in quantity within a Specification section shall be the same, and shall be interchangeable.
4. Do not use materials and equipment removed from existing structure, except as specifically required, or allowed, by Contract Documents.

5. ACBM (ASBESTOS CONTAINING BUILDING MAT'LS) NOT ALLOWED, materials containing asbestos in any manner or quantity are not allowed on this Project. If such materials are installed they shall be removed and replaced at no additional cost to the Owner.

B. Transportation and Handling

1. Transport products by methods to avoid product damage; deliver in undamaged condition in manufacturer's unopened containers or packaging, dry.
2. Provide equipment and personnel to handle products by methods to prevent soiling or damage.
3. Promptly inspect shipments to assure that products comply with requirements, quantities are correct, and products are undamaged.

C. Storage and Protection

1. For exterior storage of fabricated products, place on sloped supports above ground. Cover products subject to deterioration with impervious sheet covering; provide ventilation to avoid condensation.
2. Arrange storage to provide access for inspection. Periodically inspect to assure products are undamaged, and are maintained under required conditions.
3. Products Specified by Reference Standards or by Description Only: Any product meeting those standards.
4. Products Specified by Naming One or More Manufacturers with a Provision for Substitutions: Submit a request for substitution for any manufacturer not specifically named.

D. Products List

1. Within 15 days after date of Owner-Contractor Agreement, submit complete list of major products proposed for use, with name of manufacturer, trade name, and model number of each product.

E. Substitutions

1. Substitutions shall be submitted to Designer a minimum of 72 hours prior to the bid date for review. Any substitutions not submitted 72 hours prior to the bid date shall not be reviewed or considered.
2. Do not assume that "or Equal" or terms of similar meaning indicate automatic approval of substitute products.
3. Document each request with complete data substantiating compliance of proposed substitution with Contract Documents.
4. Request constitutes a representation that the Contractor:

- a. Has investigated proposed product and determined that it meets or exceeds, in all respects, specified product.
  - b. Will provide the same warranty for substitution as for specified product.
  - c. Waives claims for additional costs, which may subsequently become apparent.
5. The OWNER will determine acceptability of proposed substitution, and will notify the Contractor of acceptance or rejection in writing within a reasonable time.

## 1.09 CONTRACT CLOSEOUT

### A. Closeout Procedures

1. Submit Closeout Documentation to the Architect/Engineer 10 days prior to the Substantial Completion Date. The Architect/Engineer shall confirm that the Contractor has fulfilled the Contract Closeout Documentation Requirements 10 days prior to the Substantial Completion Date. The Contractor shall not submit for Final Application for Payment until the Architect/Engineer has notified the Owner that Contractor has fulfilled the Contract Closeout Documentation Requirements.
2. When the Owner considers the Work of this contract has reached Substantial Completion, the Contractor and Owner shall sign a Certificate of Substantial Completion (Attachment A). Substantial Completion is the stage in the progress of the Work when the Work or designated portion thereof is sufficiently complete in accordance with the Contract Documents so that the Owner can occupy or utilize the Work for its intended use. This Certificate of Substantial Completion will be prepared by the Architect/Engineer as stated in Specification 00 72 13, Section 37.4. When the Certificate of Substantial Completion has been signed by the Owner and the Contractor, the completed Certificate of Substantial Completion shall set the date for Substantial Completion of the work or a designated portion of the work.
3. When the Contractor considers the Work of this contract has reached final completion, the Contractor shall submit written certification that Contract Documents have been reviewed, Work has been inspected, and that Work is complete in accordance with Contract Documents and ready for OWNER's inspection. This written notification shall be submitted to the Owner 7 calendar days prior to the proposed inspection date. Per Specification 00 72 13, Section 36.4, the Contractor shall not call for final inspection of any portion of the Work that is not complete and permanently installed. The Contractor may be found liable for the expenses of individuals called to final inspection meetings prematurely.
4. In addition to submittals required by the conditions of the Contract, provide release of all liens, claims and submit final requisition.
5. The Contractor's failures to comply with Closeout Procedures, if the Closeout Documentation Requirements are not completed by the Substantial Completion Date.

The Owner reserves the right to recover the costs to complete the Closeout Documentation Requirements from the Schedule of Values item Closeout Documentation Line Item. The Owner reserves the right to hire an Architect/Engineer to complete the required Contract Closeout Documentation.

6. Liquidated Damages, the minimum liquidated damages for this project shall be applied as described under Section 00 72 13 General Conditions, paragraph 37.5. The minimum liquidated damages for this project is in accordance with Section 00 52 13, State of Maine, Bureau of General Services, Construction Contract, Article 2. The work to be performed under this contract shall be completed on or before **1 April 2023.** For each calendar day the project remains uncompleted **\$250.00 dollars per day beyond the substantial completion date shall be charged as liquidated damages.**

B. Final Cleaning

1. Execute prior to final inspection.
2. Clean site; sweep hard surfaced areas, rake clean other surfaces.
3. Remove waste and surplus materials, rubbish, and construction facilities from the Project and from the site. Owner will be responsible for cleaning after acceptance.

C. Project Record Documents

1. Store documents separate from those used for construction.
2. Keep documents current; do not permanently conceal any work until Owner has inspected and required information has been recorded.
3. At Contract closeout, submit documents with transmittal letter containing date, Project title, Contractor's name and address, list of documents, and signature of Contractor.

**PART 2 PRODUCTS**                      Not Used

**PART 3 EXECUTION**

3.01 FINAL CLEANING

- A. Execute final cleaning before final project assessment.
- B. Clean interior and exterior glass, surfaces exposed to view; remove temporary labels, stains and foreign substances, polish transparent and glossy surfaces, vacuum carpeted and soft surfaces.
- C. Clean equipment and fixtures to sanitary condition with cleaning materials appropriate to surface and material being cleaned.

- D. Replace filters of operating equipment.
- E. Clean debris from roofs, gutters, downspouts, and drainage systems.
- F. Clean site; sweep paved areas, rake clean landscaped surfaces.
- G. Remove waste and surplus materials, rubbish, and construction facilities from site.

### 3.02 STARTING OF SYSTEMS

- A. Coordinate schedule for start-up of various equipment and systems with Designer and the Owner. Use Manufacturer's Certified Testing Reports that were sent in with the Submittals and approved by the Designers.
- B. Notify Architect/Engineer seven days before start-up of each item.
- C. Verify each piece of equipment or system has been checked for proper lubrication, drive rotation, belt tension, control sequence, and for conditions that may cause damage.
- D. Verify tests, meter readings, and specified electrical characteristics agree with those required by equipment or system manufacturer.
- E. Verify wiring and support components for equipment are complete and tested.
- F. Execute start-up under supervision of applicable manufacturer's representative in accordance with manufacturers' instructions.
- G. When specified in individual specification Sections, require manufacturer to provide authorized representative to be present at site to inspect, check, and approve equipment or system installation before start-up, and to supervise placing equipment or system in operation.
- H. Submit a written report stating the equipment or system has been properly installed and is functioning correctly.

### 3.03 DEMONSTRATION AND INSTRUCTIONS

- A. Demonstrate operation and maintenance of products to Owner's personnel two weeks before date of Substantial Completion.
- B. Use operation and maintenance manuals as basis for instruction. Review contents of manual with Owner's personnel in detail to explain all aspects of operation and maintenance.
- C. Demonstrate start-up, operation, control, adjustment, trouble-shooting, servicing, maintenance, and shutdown of each item of equipment at equipment location.

- D. Prepare and insert additional data in operations and maintenance manuals when need for additional data becomes apparent during instruction.
- E. Required instruction time for each item of equipment and system is specified in individual sections.

#### 3.04 TESTING, ADJUSTING AND BALANCING

- A. The Contractor shall provide to the Owner one set of the copies of the test certification certificates that shall be provide to the State of Maine Fire Marshall's Office and or any other testing requirements that have been performed on the system.
- B. The Owner will appoint and employ services of independent firm to perform testing, adjusting, and balancing. The Contractor shall pay for services.
- C. The Contractor shall hire an independent firm to perform services specified in Section 01 91 13.
- D. Reports will be submitted by independent firm to Architect/Engineer indicating observations and results of tests and indicating compliance or non-compliance with requirements of Contract Documents.

#### 3.05 PROTECTING INSTALLED CONSTRUCTION

- A. Protect installed Work and provide special protection where specified in individual specification sections.
- B. Provide temporary and removable protection for installed products. Control activity in immediate work area to prevent damage.
- C. Provide protective coverings at walls, projections, jambs, sills, and soffits of openings.
- D. Protect finished floors, stairs, and other surfaces from traffic, dirt, wear, damage, or movement of heavy objects, by protecting with durable sheet materials.
- E. Prohibit traffic or storage upon waterproofed or roofed surfaces. When traffic or activity is necessary, obtain recommendations for protection from waterproofing or roofing material manufacturer.
- F. Prohibit traffic from landscaped areas.

#### 3.06 PROJECT RECORD DOCUMENTS

- A. Maintain on site one set of the following record documents; record actual revisions to the Work:
  - 1. Drawings.

2. Specifications.
  3. Addenda.
  4. Change Orders and other modifications to the Contract.
  5. Reviewed Shop Drawings, Product Data, and Samples.
  6. Manufacturer's instruction for assembly, installation, and adjusting.
- B. Ensure entries are complete and accurate, enabling future reference by Owner.
- C. Store record documents separate from documents used for construction.
- D. Record information concurrent with construction progress, not less than weekly.
- E. Specifications: Legibly mark and record at each product section description of actual products installed, including the following:
1. Manufacturer's name and product model and number.
  2. Product substitutions or alternates used.
  3. Changes made by Addenda and modifications.
- F. Red-Line Drawings: Legibly mark each item to record actual construction including:
1. Measured depths of foundations in relation to finish main floor datum.
  2. Measured horizontal and vertical locations of underground utilities and an appurtenances, referenced to permanent surface improvements.
  3. Measured locations of internal utilities and appurtenances concealed in construction, referenced to visible and accessible features of the Work.
  4. Field changes of dimension and detail.
  5. Details not on original Contract drawings.
- G. Submit Closeout Documentation to the Designer 10 days prior to the Substantial Completion Date. The Designer shall confirm that the Contractor has fulfilled the Contract Closeout Documentation Requirements 10 days prior to the Substantial Completion Date.

### 3.07 OPERATION AND MAINTENANCE DATA

- A. Submittal Requirements:

1. Submit **three (3) copies** of data on 8-1/2 x 11-inch (A4) text pages, bound in **three (3)** separate D side ring binders with durable plastic covers.
2. **Contractor shall provide the O&M Manual in electronic form on CD/DVD.** All sections of the electronic form of the O&M Manual shall be **searchable**, excluding drawings and warranties. Every effort should be made to have the "Technical Data" section searchable as well, with the understanding this may not be possible in some instances. Provide **one** CD for each setup of O & M Manuals.
3. Prepare binder cover with printed title "OPERATION AND MAINTENANCE", title of project, location, project number, and subject matter of binder when multiple binders are required. A spine label with same information should also be provided.
4. Subdivide each binder's contents with permanent page dividers, logically organized, with tab titles clearly printed. Tabs should be organized and titled based on the Table of Contents.

#### B. Manual Submission

1. Submit **one copy** of preliminary draft or proposed formats and outlines of contents before start of Work. The Architect/Engineer will review the draft and return the copy with comments.
2. For equipment, or component parts of equipment put into service during construction and operated by Owner, submit documents within ten days after acceptance.
3. Submit one copy of completed volumes 15 days before final inspection. Draft copy be reviewed and returned after final inspection, with Architect/Engineer comments. Revise content of document sets as required before final submission.
4. Submit two sets of revised final volumes in final form within 10 days after Receipt from Owner.

#### C. Contents

1. **Project Summary:** The first page in binder should include a paragraph describing the Project followed by a Contact List. The Contact List is to include DFE Project Manager name along with company name, contact name, address, and telephone number for the Architect/Engineer, Contractor, Subcontractors, and major equipment suppliers.
2. **Drawings:** Provide reduced copies of each plan printed on 11 x 17 pages and insert them after the Project Summary page. Also provide a CD/DVD in the back of each binder containing Record Drawing files in both Adobe PDF and AutoCAD Release 2009 format. AutoCAD drawings shall be delivered as stand-alone without X-references. If Drawing originally had X-references, Bind them using the Insert option and do not explode inserted block. The Architect shall also provide the AutoCAD

Plot Style (CTB file) used for the drawings along with any and all images used within the drawings.

3. Table of Contents: Provide a Table of Contents (TOC) for the binder and place behind the reduced plans. If multiple binders are necessary, include a TOC for the entire submission, then a TOC for the individual binder. TOC should be a listing of all products or systems and the 6 required components below each.
4. Product/System Components: Provide the following information for each product and/or system. Provide additional requirements as specified in individual product specification sections.
  - a. **OVERVIEW and INFORMATION**:
    - i. Equipment Register: equipment description, model number(s), date of installation, installer w/contact info, supplier w/contact info, manufacturer w/contact info, warranty date, warranty details, estimated life / useful life.
    - ii. Description of Complete Installation: A general description of the installation to provide a general understanding of the equipment and its operation.
    - iii. Specific System Description: A technical description of each system of the installation, written to ensure it can be clearly understood by persons not familiar with the installation.
    - iv. Performance Data: Technically description of the mode of operation of each system provided. This section provides functionality details.
    - v. When applicable, include charts of valve tag numbers, with location and function of each valve, keyed to flow and control diagrams.
  - b. **OPERATIONS**:
    - i. Manufacturers' technical literature as appropriate. For other than common accessories, where no manufacturer literature is available, provide a precise and concise description of the operation procedure in plain English.
    - ii. Safe start-up, break-in, routine operation, shut-down, and emergency operations for the equipment installed including a logical step-by-step sequence of instructions for each procedure. Include summer, winter and special operating instructions.
    - iii. List of all limiting conditions for equipment.
    - iv. Control Sequence and flow diagrams for the system installed.
    - v. A legend for color-coded services. A legend of the symbols used on the drawings, unless included on the drawings.
    - vi. Schedules of the parameter settings of each protective device, including fixed and adjustable circuit breakers, protective relays, adjustable photoelectric switches, pressure switches, and any other control and monitoring device, as established during commissioning and maintenance.
  - c. **MAINTENANCE**
    - i. Emergency procedures, including telephone numbers for emergency services, and procedures for fault-finding.

- ii. Manufacturers' technical literature, as appropriate. Include original manufacturers' parts list, illustrations, assembly drawings, and diagrams required for maintenance.
- iii. Detailed recommendations for the frequency of performance of routine maintenance tasks.
- iv. List of procedures and tasks associated with preventative (routine) maintenance.
  - v. Procedures for safe trouble shooting, disassembly, repair and reassembly, cleaning, alignment, inspection and adjustment, including a logical step-by-step sequence of instructions for each procedure.
  - vi. Include summer, winter and special maintenance instructions.
- vii. Maintenance Schedule: schedule of the frequency of the required or recommended maintenance, testing and inspection for each type of equipment. The schedule is to include weekly and monthly attendance times.
- viii. Installation and dismantling instructions: Instructions for the proper installation and dismantling of the equipment.
- ix. Spares and Consumables:
  - 1. Schedule of spares (including bearings) with an expected operating life less than 40,000 hours. Include expected replacement frequency, item label manufacturer name, address, and telephone number, catalogue number name and address of local distributor.
  - 2. Schedule of Consumable Items (oil, grease, belts, bearings) to be used during servicing.
  - 3. Furnish spare parts, consumable items, and extra products in quantities specified in individual specification sections and/or as recommended by manufacturer or requested by Owner. Deliver to project site and place in location as directed by Owner; obtain receipt before final payment.

d. TECHNICAL DATA

- i. Manufacturers' technical literature assembled specifically for the project and **excluding irrelevant matter.**
- ii. Each product data sheet marked to clearly identify the specific products and components used in the installation and the data applicable. Additional instructions and illustrations, as required, to identify and changes to the manufacturers' data or to illustrate the function of each component in the installation.
- iii. Provide performance curves and engineering data
- iv. Include control diagrams by controls manufacturer as installed.
- v. Panelboard Circuit Directories: Provide electrical service characteristics, controls, and communications; typed.
- vi. Shop drawings (*Do we want them?*)

e. WARRANTIES

- i. Provide originals of Manufacturers' warranties and bonds executed in duplicate by responsible subcontractors, suppliers, and manufacturers, within ten days after completion of applicable item of work
- ii. All Guarantees

- iii. Certificates of compliance for all electrical and plumbing works, where applicable.
- iv. If installation is not by the manufacturer, and product warranty is conditional on the manufacturer's approval of the installer, submit the manufacturer's approval of the installing firm.
- f. COMMISSIONING REPORTS
  - i. Air and water balance reports
  - ii. Include test and balancing reports as specified in Section 01 91 00.
  - iii. Records of test results
  - iv. Records of Commissioning Data

### 3.08 PRODUCT WARRANTIES AND PRODUCT BONDS

- A. Execute and assemble transferable warranty documents and bonds from subcontractors, suppliers, and manufacturers.
- B. Verify documents are in proper form, contain full information, and are notarized.
- C. Co-execute submittals when required.
- D. Submit before final Application for Payment.
- E. Time of Submittals:
  - 1. For equipment or component parts of equipment put into service during construction with Owner's permission, submit documents within ten days after acceptance.
  - 2. Make other submittals within ten days after Date of Substantial Completion, before final Application for Payment.
  - 3. For items of Work for which acceptance is delayed beyond Date of Substantial Completion, submit within ten days after acceptance, listing date of acceptance as beginning of warranty or bond period.

END OF SECTION 01 00 00

<b>TRANSMITTAL OF SHOP DRAWINGS, EQUIPMENT DATA, MATERIAL SAMPLES, OR MANUFACTURER'S CERTIFICATES OF COMPLIANCE</b> (Read instructions on page two prior to initiating this form.)					DATE:		TRANSMITTAL NO			
<b>SECTION I – REQUEST FOR APPROVAL OF THE FOLLOWING ITEMS</b> (This section will be initiated by the contractor.)										
TO:			FROM:			DFE PROJECT NUMBER		CHECK ONE: <input type="checkbox"/> THIS IS A NEW SUBMITTAL <input type="checkbox"/> THIS IS A RESUBMITTAL OF TRANSMITTAL NO. _____		
SPECIFICATION SEC NO. (Cover only one section with each transmittal)			PROJECT TITLE AND LOCATION:							
ITEM NO.	DESCRIPTION OF ITEM SUBMITTED (Type size, model number/etc.)	MFG OR CONTR. CAT., CURVE DRAWING OR BROCIURE NO.	NO. OF COPIES	CONTRACT REFERENCE DOCUMENT		FOR CONTR- ACTOR USE CODE	VARIATION (See instr. #6)	FOR DFE USE CODE		
				SPEC PARA NO.	DRAWING SHEET NO.					
a.	b.	c.	d.	e.	f.	g.	h.	i.		
							<input type="checkbox"/>			
							<input type="checkbox"/>			
							<input type="checkbox"/>			
							<input type="checkbox"/>			
							<input type="checkbox"/>			
							<input type="checkbox"/>			
							<input type="checkbox"/>			
							<input type="checkbox"/>			
REMARKS					I certify that the above submitted items have been reviewed in detail and are correct and in strict compliance with the contract drawings and specifications except as otherwise stated.  _____ SIGNATURE OF THE CONTRACTOR  NAME:					
<b>SECTION II – APPROVAL ACTION</b>										
ENCLOSURES RETURNED (List by Item No.)			NAME, TITLE OF APPROVING AUTHORITY				DATE			

## INSTRUCTIONS

1. Section I will be initiated by the Contractor in the required number of copies.
2. Each transmittal shall be numbered consecutively in the space provided for "Transmittal No.". This number, in addition to the DFE Project Number, will form a serial number for identifying each submittal. For example: 23SR10-470-D-T1
3. For new submittals or resubmittals mark the appropriate box; on resubmittals, insert transmittal number of last submission as well as the new submittal number.
4. Submittals requiring expeditious handling will be submitted on a separate form.
5. A separate transmittal form will be used for submittals under separate sections of the specifications.
6. A check shall be placed in the "Variation" column (Section I, Column h) when a submittal is not in accordance with the plans and specifications. Also, a written statement to that effect shall be included in the space provided for "Remarks".
7. The form is a self-transmittal, i.e. letter of transmittal is not required.
8. When a sample of material or Manufacturer's Certificate of Compliance is transmitted, indicate "Sample" or "Certificate" in Section I, Column c.
9. Directorate of Facilities Engineering approving authority will assign action codes as indicated below in space provided in Section I, Column i to each item submitted. In addition, they will ensure enclosures are indicated and attached to the form prior to return to the Contractor. The Contractor will assign action codes as indicated below in Section I, Column g to each item submitted.

### THE FOLLOWING ACTION CODES ARE GIVEN TO ITEMS SUBMITTED

A – Approved as submitted

B – Approved, except as noted on drawings

C – Approved, except as noted on drawings.

Refer to attached sheet resubmission required.

D – Will be returned by separate correspondence.

E – Disapproved (See Attached)

F – Receipt acknowledged.

FX – Receipt acknowledged, does not comply as noted with contract requirements.

G – Other (Specify)

10. Approval of items does not relieve the Contractor from complying with all the requirements of the contract plans and specifications